

Method and Apparatus for Observing and Inspecting Defects

ABSTRACT OF THE DISCLOSURE

5 A defect inspecting apparatus is disclosed that can detect finer defects with high resolution optical images of those defects, and which makes the difference in contrast greater between fine line patterns of a semiconductor device. The defect inspecting apparatus includes a sample mounting device for mounting a sample; lighting and detecting apparatus for illuminating a patterned sample mounted on a mount and
10 detecting the optical image of the reflected light obtained therefrom. Also included is a display for displaying the optical image detected by this lighting and detecting apparatus; an optical parameter setting device for setting and displaying optical parameters for the lighting and detecting apparatus on the display; and optical parameter adjusting apparatus for adjusting optical parameters set for the lighting and detecting apparatus according to
15 the optical parameters set by the optical parameter setting apparatus; a storage device for storing comparative image data; and a defect detecting device for detecting defects from patterns formed on the sample by comparing the optical image detected by the optical image detecting apparatus with the comparative image data stored in the storage.

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